UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/676,041	10/02/2003	Kenya Ishii	103660.01	6933

25944 7590 10/31/2006

OLIFF & BERRIDGE, PLC
P.O. BOX 19928
ALEXANDRIA, VA 22320

EXAMINER	
LAO, LUN YI	
ART UNIT	**PAPER NUMBER**
2629	

DATE MAILED: 10/31/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/676,041	ISHII ET AL.	
	Examiner	Art Unit	
	LUN-YI LAO	2629	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *07 August 2006*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-15* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-13* is/are rejected.

7)☒ Claim(s) *14 and 15* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☒ Certified copies of the priority documents have been received in Application No. 09/362,654.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 1 and 3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kouichirou(JP 09-034412) in view of Kazuhiro et al(JP 03-180890).

Kouichirou eaches a liquid crystal device comprising: a first operation mode conducting sequential driving(see figures 1-3; abstract and paragraph 16 of Japanese Translation); a second operation mode conducting simultaneous-multiple driving(see figures 1-2, 4; abstract and paragraph 18-19 of Japanese Translation); a shift register(211) outputs a shifted signal(SHout); a transfer signal line outputs a transfer signal based on output from the shift register(211); an enable signal supply unit(22, 33R-33B) supplies a plurality of enable signal(EN1, EN2, EN3) during the time duration of the pulsewidth of the transfer signal(SHout), the enable signals(EN1, EN2, EN3) each having a pulsewidth shorter than the pulsewidth of the transfer signal(SHout, see figure 3 in the first operation mode); an enable circuit(211, 33R-33B) that ANDS(33R-33B) the transfer signal(SHout) and the enable signal(EN1, EN2, EN3) during the same time duration as the transfer signal to output a plurality of sampling signals(Gout, Rout, Bout)

during the time duration of the transfer signal, the sampling signal(Gout, Rout, Bout) have the same pulsewidth and timing as the pulsewidth and timing of the enable signals; an input unit(22) selecting one of the first operation mode and the second operation mode; and a control unit(22) switching between the operation modes according to output of the input unit, and that controls the enable signal supply unit to output the enable signal(EN1, EN2, EN3) sequentially during the first operation mode and simultaneously during the second operation mode(see figures 1-4; abstract and paragraph 12-19 of Japanese Translation).

Kouichirou fails to teach the enable signals(EN1, EN2, EN3) having a pulsewidth shorter than the pulsewidth of the transfer signal(SHout) in a second operation mode(simultaneous mode).

Kazuhiro et al teach the enable signals(c-e) having a pulsewidth shorter than the pulsewidth of the transfer signal(S1) in a second operation mode(simultaneous mode) which is same as a first operation mode(sequential mode)(see figures 2-4 of Japanese translation). It would have been obvious to have modified Kouichirou with the teaching of Kazuhiro et al, so as to simplify the enable signal supply unit by applying same pulse width in the first and second operation modes.

As to claim 3, Kouichirou teaches the second operation mode(simultaneous mode) the image signals are serial-parallel converted into a plurality of components(see figures 1-2, 4; abstract and paragraphs 2-3 and 18-19 of Japanese translation).

3. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kouichirou in view Kazuhiro et al and Matsumoto et al(5,400,050).

Kouichirou as modified fail to point out the display device for supplying image signal without a serial-parallel converter.

Matsumoto et al teach an LCD display for supplying image signal(30) without a serial-parallel converter(see figure 1B and column 5, lines 18-26). It would have been obvious to have modified Kouichirou as modified with the teaching of Matsumoto et al, so as to reduce the cost of an LCD display by eliminating the serial-parallel converter.

4. Claims 4 and 6-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kouichirou in view of Kazuhiro et al and Yamazaki(5,956,082).

Kouichirou as modified fail to disclose a motion detector for detecting the presence or absence of motion in an image to be displayed.

Yamazaki teaches a display system a motion detector(24) for detecting the presence or absence of motion in an image to be displayed and a controller(22, 23) switching between the operation mode according to the detecting result(see figure 3; column 5, lines 18-68 and column 6, lines 1-17). It would have been obvious to have modified Kouichirou as modified with the teaching of Yamazaki, so to automatically display an image in an optimum display mode suted to the kind of image to be displayed(see column 6, lines 15-18).

As to claim 6, Kouichirou teaches the second operation mode(simultaneous mode) the image signals are serial-parallel converted into a plurality of components(see figures 1-2, 4; abstract and paragraphs 2-3 and 18-19 of Japanese translation).

As to claim 7, Kouichirou teaches an input unit setting whether an image to be input as a video signal or an image to be input as an RGB signal is

displayed(see figures 2-4 and abstract).

As to claims 8-9, Kouichirou as modified teach the image signal processing circuit switching to the first operation mode when there is any motion or rapid motion contained in an image represented by the input image signal since Yamazaki teach a method for switching an image in an optimum display mode suited to the kind of image to be displayed(see column 6, lines 15-18).

As to claims 10 and 11, Kouichirou as modified teach the image signal processing circuit switching to the second operation mode when there is no motion or some motion detected in the image to be display since Yamazaki teach a method for switching an image in an optimum display mode suited to the kind of image to be displayed(see column 6, lines 15-18).

5. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kouichirou in view of Kazuhiro et al, Yamazaki and Matsumoto et al(5,400,050).

Kouichirou as modified fail to point out the display device for supplying image signal without a serial-parallel converter.

Matsumoto et al teach an LCD display for supplying image signal(30) without a serial-parallel converter(see figure 1B and column 5, lines 18-26). It would have been obvious to have modified Kouichirou as modified with the teaching of Matsumoto et al, so as to reduce the cost of an LCD display by eliminating the serial-parallel converter.

6. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kouichirou in view of Kazuhiro et al and Gyouten(5,786,800).

Kouichirou teaches AND gate(33R-33B)(see figure 2) and Kouichirou as modified fail to disclose an NAND gate and an inverter connected in series.

Gyouten teaches an NAND gate(46) and an inverter(47) connected in series(see figure 7 and column 17, lines 25-43). It would have been obvious to have modified Kouichirou as modified with the teaching of Gyouten, since Kouichirou teaches an AND gate and Gyouten teaches the AND could be replaced by an NAND gate and an inverted connected in series(see column 17, lines 25-47).

7. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kouichirou in view of Kazuhiro et al , Yamazaki(5,956,082) and Gyouten(5,786,800).

Kouichirou teaches AND gate(33R-33B)(see figure 2) and Kouichirou as modified fail to disclose an NAND gate and an inverter connected in series.

Gyouten teaches an NAND gate(46) and an inverter(47) connected in series(see figure 7 and column 17, lines 25-43). It would have been obvious to have modified Kouichirou as modified with the teaching of Gyouten, since Kouichirou teaches an AND gate and Gyouten teaches the AND could be replaced by an NAND gate and an inverted connected in series(see column 17, lines 25-47).

Allowable Subject Matter

8. Claims 14 and 15 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

9. Applicant's arguments with respect to claims 1-13 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Shimizu teaches an LCD display having an AND gate(33).

11. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL.** See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lun-yi Lao whose telephone number is 571-272-7671. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bipin Shalwala can be reached on 571-272-7681. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

October 28, 2006

L. Y. Lao

Lun-yi Lao
Primary Examiner